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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/748,174	12/31/2003	Lukas Trosman	24GA127099	5555
33727 7590 01/27/2009 HARNESS, DICKEY & PIERCE, P.L.C. P.O. BOX 8910 RESTON, VA 20195				
EXAMINER				
MONDT, JOHANNES P				
ART UNIT		PAPER NUMBER		
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

**Advisory Action
Before the Filing of an Appeal Brief**

Application No.

10/748,174

Applicant(s)

TROSMAN ET AL.

Examiner

JOHANNES P. MONDT

Art Unit

3663

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 12 December 2008 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☐ The period for reply expires _____ months from the mailing date of the final rejection.
b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.
Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☒ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
(a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);
(b) ☐ They raise the issue of new matter (see NOTE below);
(c) ☒ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: See Continuation Sheet (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. ☐ Applicant's reply has overcome the following rejection(s): _____.
6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. ☒ For purposes of appeal, the proposed amendment(s): a) ☒ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
The status of the claim(s) is (or will be) as follows:
Claim(s) allowed: _____.
Claim(s) objected to: _____.
Claim(s) rejected: 24, 26-29 and 31-33.
Claim(s) withdrawn from consideration: _____.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:
See Continuation Sheet.
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08) Paper No(s). _____.
13. ☐ Other: _____.

/Johannes P Mondt/
Primary Examiner, Art Unit 3663

Continuation of 3. NOTE: Said proposed "amendment" only lists previously rejected claims previously presented and hence is a pseudo-amendment not placing the application in better condition for allowance..

Continuation of 11. does NOT place the application in condition for allowance because:

In response examiner includes "Response to Arguments" in the Final Office action in its entirety in response to applicants' arguments. Additional comments in response are offered herewith as follows, aiming only to specifically respond to the specific language of the traverse being presented here for the first time:

With regard to the argument presented on pages 8-9 that

"the suggested modification of Figure 15 improperly replaces rigorous calculations using Orii's conditional Equations with mere speculation as to how the specifically derived fuel rod pattern of Figure 15 may be further modified."

(page 9): as pointed out in said Response, none of the so-called "Equations" 1-6 in Orii are equations but instead are weak constraints through inequalities, allowing a broad continuum of parameter values as acceptable solutions for Orii's stated purpose. This point was mentioned in said "Response", but applicants appear to fully ignore it.

With regard to applicants' argument (page 10) that

"the embodiment of Fig. 15 is similar to the fuel rod pattern recited in independent claim 24 is the product of nothing more than coincidence, as Orii's conditional Equations are only focused on increasing burn-up without increasing pressure loss" appears to traverse motivation where none is needed for citing of Orii et al as a primary reference. Moreover, Orii et al is not "only" focused on increasing burn-up, but instead on increasing burn-up without increasing pressure loss, while with regard to motivation to modify the teaching of Orii et al being at least in part either guided or constrained by the same stated purpose of increasing burn-up without increasing pressure loss, the fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See MPEP § 2145, section II.

With regard to applicants' argument in traverse of the citing of Fig. 19 in Ueda (pages 10-11), said argument fails to persuade because the general definition of fuel rods 22 as being designated "P", as interposed fuel rods of partial length, see (Ueda, col. 8, l. 20-48):

"The fuel rods 22 each in which an interposed member 27 is inserted are denoted by the letter P. The length of the interposed member 27 is suitably determined to be less than about 1/3 of the entire effective length H of the fuel rod"

, see Figure 19, showing on the left hand side fuel rods extending from the bottom to the boundary between the fuel and the interposed member 27. In terms of either contiguous fuel or total fuel length fuel rods 22 marked "P" are partial length rods.

With regard to applicants' argument (page 12 of Remarks) that neither references teach "a first part-length rod group including two subsets in a mirror-image relationship along the centerline between the two water passages, each subset further comprising three part-length rod group including two subsets in a mirror-image relationship along the centerline between the two water passages, each subset further comprising three part-length fuel rods in a triangular orientation with one rod of the subset closer to the longitudinal centerline between the two water passages than the other two rods of the subset" is logically deficient if meant to be a requirement for the rejection to be valid, because the rejection is based on a combination of teachings. Furthermore, inclusion of the teaching by Ueda and starting with the embodiment of Figure 15 of Orii et al and increasing the part-length fuel rods according to Ueda et al (Fig. 19) results in an embodiment that meets the limitation.

With regard to applicants' allegation (pages 12-13 of Remarks) of improper combination destroying the intended function of Orii et al, the discussion under (f) on pages 6-7 in "Response to Arguments" of the Final Office action as already included by reference is herewith considered proper and fully responsive, while applicants do not explain why the teaching of Johansson advocating the use of part-length fuel rods to improve critical by lowering the pressure drop would destroy the invention by Orii et al, particularly since Orii et al already employs part-length fuel rods.

That there is no question that the inventions may be combined within the context of the constraint imposed by Orii et al is discussed within the context of an analysis of the constraints of "Equations" (1)-(6) on pages 6-7 of the Final Office action mailed 11/19/08.

In their hindsight argument (page 13) applicants allege that since not every feature is taught by the primary reference the rejection is based on hindsight. No 103(a) rejection would ever see the light of day if applicants were correct. Reasonable motivation was absent, according to applicants. Applicants do not elaborate. In summary: Orii et al increases burn-up without increasing pressure drop (see "Summary of the Invention"), and Ueda and Johansson how to lower the pressure drop (col. 5, l. 9-24 in Ueda and abstract in Johansson).

In light of the above considerations the rejections over Orii et al, Ueda and Johansson of claims 24-29 stand.

Arguments of traverse regarding the rejections of claims 31-3 are the same as those presented in the Remarks filed 7/30/08 and responded in under sections (g) and (h) of "Response to Arguments" of the previous Final Office action mailed 11/19/08, already included by reference (see beginning of this section) and which are herewith included in specific response by reference to all arguments in traverse of said rejections of claims 31-3 in their entirety.

JPM